

Thesis/
Reports
Forman,
J.

REPORT ON THE GRAZING SITUATION ON THE ROOSEVELT
NATIONAL FOREST IN COLORADO BY THE NATIONAL FOREST
BOARD OF REVIEW

Jonathan Forman

Barney

DEPARTMENT OF AGRICULTURE

WASHINGTON 25, D.C.

March 23, 1950

Mr. Lyle F. Watts, Chief
U. S. Forest Service

Dear Mr. Watts:

In response to my request of June 30, 1949 the National Forest Board of Review has submitted a report on the grazing situation on the Roosevelt Forest in Colorado.

In submitting its report the Board said:

Your Board is hopeful that its findings may be of some service both in supporting needed regulations and management of the vital resources of the national forests as well as in establishing a more harmonious relationship in the Colorado region between the Forest Service, the resource users and the public.

Attached is a copy of the summary and conclusions of this report, which I should like to have you consider in connection with further study of the Roosevelt Forest to be made by your office this summer.

The Board's findings are of particular interest, coming as they do from a group selected on the basis of personal competence and not as representatives of any individual or organization directly concerned with the use of national-forest lands.

Copies of the summary may be given to anyone interested.

Sincerely yours,

/s/ CHARLES F. BRANNAN
Secretary

Enclosure

(over)

Ames, Iowa
January 25, 1950

Honorable Charles Brannan
Secretary of Agriculture
U.S. Department of Agriculture
Washington 25, D. C.

Dear Secretary Brannan:

Reference is made to your letter of June 30, 1949, addressed to the Acting Chairman, National Forest Board of Review. Particular reference is made to the portion of your letter in regard to a study of the grazing situation on the Roosevelt National Forest in Colorado, and to the reply of July 3, 1949, from the Board's acting chairman.

Your National Forest Board of Review has the honor to submit the attached "Report on the Grazing Situation on the Roosevelt National Forest in Colorado" along with a brief supplemental statement covering inspection by the Board of several of the grazing allotments in question.

The Board's report is, therefore, based upon a brief field survey and numerous conferences with stockmen, sportsmen, water users, recreationists, officials of associations, editors and the public, as well as with administrators and scientific staff members of the Forest Service and other governmental agencies. The survey, also, includes a review of publications, documents and letters made available to the Board by stockmen, editors, the Forest Service and others.

We would like particularly to call your attention to the "Summary and Conclusions", more especially to paragraphs 4, 7, 11, 12, 15, 16 and 18.

Your Board is hopeful that its findings may be of some service both in supporting needed regulations and management of the vital resources of the national forests as well as in establishing a more harmonious relationship in the Colorado region between the Forest Service, the resource users and the public.

Very truly yours,

/s/ Jonathan Forman M.D.
Jonathan Forman

/s/ R. R. Renne
R. R. Renne

/s/ G. B. MacDonald
G. B. MacDonald
National Forest Board of Review

GBMacD:bh

Enc:

1/25/50

REPORT ON THE GRAZING SITUATION ON
THE ROOSEVELT NATIONAL FOREST IN COLORADO

By The National Forest Board of Review

The fundamental problem in the present grazing situation on the Roosevelt National Forest is directly related to the other several resources for which public economy and sustained use demand consideration. The problem requires an effort to determine the relative values of these resources, or uses, under the management and administration of the Forest, in order to best serve the immediate locality, the state, and the public in general. In attempting to make such an evaluation it is necessary to take into consideration first the water and soil factors upon which the other resources and uses depend. It involves also an appraisal of the relative importance of timber production, grazing, wildlife production, recreation, irrigation and domestic water use. It involves securing of a balance of these uses which will minimize disturbance of local economy and at the same time safeguard these values for the future.

ATTITUDES OF USERS

It seems quite clear to your Board that there is not an adequate and general appreciation of the relative values of these ultimate purposes to which the Roosevelt National Forest should be put. This is true of the public at large as well as of those directly involved in the use of the national forest resources.

Sportsmen

In the appraisal of the Roosevelt's resources and uses some of the sportsmen consider hunting and fishing as deserving highest priority. This may not be considered as an unusual attitude nor one without some merit since the Federal Government and the State of Colorado control respectively 38 per cent and 5 per cent of the lands within the State which include the major fishing, hunting and recreational resources available for the public. The extent to which these uses will be available will depend upon their relative importance among the other uses and also upon the funds which are allocated to the Forest Service to manage, develop and maintain these uses. The sportsmen interviewed seemed convinced that the Forest Service was doing as good a job as it can with the very limited funds at its disposal for this work. They were in agreement that overpopulations of big game animals can be just as detrimental to the other uses of the Forest as the overgrazing by domestic livestock. It was further pointed out that the tourist trade of Colorado and the industries which it supports, amounts to \$150,000,000 annually and is exceeded in the state only by farming.

In the Roosevelt National Forest, recreation and wildlife resources rank next to watershed values to the citizens of the state. The continued increase in big game animals--often to the nuisance point--is frequently advanced as evidence that the range is not being overgrazed. The wildlife

population should of course be curtailed. This is often difficult, however, because of the many protected breeding places outside the national forest boundaries. The state game officials and the sportsmen's associations usually cooperate with the Forest Service in making adjustments in over-populated areas.

The Stockman

The stockmen with whom the Board has corresponded, or has had interviews, hold two different opinions concerning the national forest values. Some give priority to watershed values and some to grazing. It was the feeling of the Board that those who placed watershed protection first, had a much better grasp of the principles of soil and water conservation and the part which these play in the total resource picture. These men recognize the importance and magnitude of the water problems but they insist that the need calls for control at or near the source rather than by means of reservoirs at a distance from the head waters. Proper land use on the range and on the Forest is the only way, they say, which will bring this about.

In evaluating the place that livestock men, as permittees, hold in the National picture, the Department of Agriculture estimates for 1947 are rather significant. It shows that in the 11 Western States 11.6 percent of the cattle, (exclusive of dairy animals) and 24.8 percent of the stock sheep grazed for some part of the year on the National Forest ranges. The Board recognizes that the National Forests of these same Western States provide about 8 percent of the feed requirements of the sheep and cattle. However, the National Forest ranges produce only a very small fraction of the total feed required for all of the livestock of the country. It is true that the 11 Western States do produce a sizeable percentage of animals going on to the nation's feed lots and a considerable number of these animals are grazed during the summer on the National Forests. Grassland farming, increasing as it is in every part of the nation, could well offset any losses in national forest range use.

A destructive range policy in Colorado or any western state, might not be a major catastrophe for the nation as a whole in view of the great expansion of grassland farming in the United States. However, it would be of major concern to local economy not only from the loss of income from livestock but more especially from its adverse effects upon the water resources.

In general, however, the feeling of the stockmen in the Roosevelt National Forest area is that the range is not being seriously overgrazed by their livestock. In most cases this is an honest opinion. The men who run cattle on the Forest believe they know better than to "cut their own throats". They seem to be agreed that the range should be controlled and guarded against overgrazing. Several objections or difficulties were voiced in interviews and in the local press. The more common were that cuts in allotments were being made where there was no appreciable overgrazing and the livestock was coming off the range in good condition; that the return of the original bunch grass plants was not necessary or good economy; that the Forest Service was arbitrary in its decisions; that transfer cuts in allotments were in many cases not justified; and

that the Forest Service program would eventually lead to the elimination of all livestock on the national forest. Except in the case of a very few angry stockmen, this group of users is satisfied that ownership of the national forest grazing lands should be retained by the Federal authorities rather than to have these lands sold to private interests. Some would favor state or at least local control or regulation. In general, it appears that the stockmen's associations have stood against acquiring, by private interests, these federal grazing lands but at the same time request more voice in control or regulation.

The Board is aware that one of the most serious factors in the controversy between the Forest Service and the stockmen stems from the publicity blasts by over-zealous writers in the public press attacking the stockmen for alleged widespread abuses of the range, on the one hand, and the shafts leveled by some stockmen, their sympathizers, and the press at the so called "bureaucrats." The alleged infringement of "individual rights" by any governmental agency naturally attracts attention in the press both locally and nationally. Through this unfortunate publicity the emotions of both Forest Service personnel and the stockmen are unduly exercised, which is a contributing factor in fomenting suspicion and stubbornness on both sides. Rapid turnover in Forest Service personnel, inexperience, lack of diplomacy, and an insufficient public relations program are all involved. But primarily, the thing which keeps the situation tense is the unfortunate publicity which tends to turn the concerned parties against each other.

As a result of this publicity a substantial portion of the stockmen, at least, have been led to believe that the corrective measures for the range resources are, in effect, the first step in the total elimination of all livestock grazing on the Roosevelt National Forest.

Water Users

Farmers who depend upon irrigation water from the Roosevelt National Forest are much concerned with the jeopardy in which they find their water rights. The Board was advised by water users that control of grazing on the Roosevelt was badly needed for the prevention of siltation of the canals and reservoirs of the area. In 1948, it is reported that one reservoir belonging to the North Poudre Irrigation Company of Fort Collins was approximately eighty per cent filled with silt. Older residents in Fort Collins pointed out that great increase in stream erosion has taken place in their time. The loss of water storage capacity may become a serious threat for the irrigation farmer and the domestic water users. It was pointed out to the Board that only a few years ago \$50.00 per acre foot was considered a fair price for water storage areas, but, today, the few sites remaining are selling for as much as \$150.00 per acre foot, and few such sites are left. Thousands of dollars are spent each year to clean out silt from the irrigation ditches. A part of this silt load naturally comes from the foothills and from roads and cuts, but a large amount comes from the higher and rougher areas, some of which are eroding because of loss of the effective vegetative cover of timber or forage plants. It appears to your Board that water can best be conserved and serious soil erosion and floods minimized by checking flow and providing ground and other storage near its source rather than at the lower elevations. Among the farmers, however, are those whose water rights are so

adjusted that only the excess flood waters are available for their use. These water users with "junior rights" are naturally not interested in having the runoff regulated to the extent that their supply would be eliminated. Proper conservation and water storage upstream, however, would furnish a more adequate usable supply, in which "junior right" users should share equitably.

THE BOARD'S OPINION

Priority of Uses

After a survey of the resources and uses of the Roosevelt National Forest and after securing the views of representatives of the various users of the Forest resources, and the citizens of the community, the National Forest Board of Review is of the opinion that the following priority should be given to the various purposes to which the Roosevelt Forest should be put in the best interests of the public:

1. Watershed protection for the purpose of supplying and safeguarding an adequate and permanent water resource for both urban and rural use, and for minimizing soil erosion.
2. Recreation, including the uses of the Forest for hunting and fishing as well as for the general recreational use for camping, picnicking and relaxation.
3. Livestock grazing.
4. Forest production for supplying lumber and other timber products.

We feel that each of the above uses can be developed without the exclusion or serious impairment of anyone if the problem is approached with understanding and some forbearance on the part of the different groups of users, and if an effort is made to secure that balance of use which will best serve the entire community over the years.

Public Relations

It is the belief of your Board that there is opportunity for bettering the relations between the Forest Service and the stockmen. The Forest officers have been selected to administer the resources under their jurisdiction. Restrictions and regulations are necessary in the interest of all concerned including both the users and the public. Friction arises because of a difference in opinion on the extent of restrictions needed and the manner in which these restrictions are carried out or enforced. The latter has to do with "public relations." Many of our younger administrators are zealous of doing a good job in their administrative work. They were selected, presumably, because of their fitness for the job which requires decision and backbone but at the same time patience and a willingness to understand all sides of questions involved—and above all, a cooperative approach in resolving disagreements. Good "public relations", however, cannot be obtained without cooperation from both sides.

Controversies between representatives of the stockmen and the Forest Service in Colorado, date back nearly a half century to the time when fees for grazing use of the national forest range were first required. Amid some name calling and blasts at the "bureaucrats" some decisions were made which were branded as "arbitrary" but were definitely in the long-time interest of the stockmen as well as the public.

Some of the younger administrators have been confronted with an occasional cantankerous citizen who seemingly does not represent the opinions of the average citizen nor those of the average stockman. This does not contribute toward good relationships. The older experienced men who have been battling the more vocal of the stockmen are as weary of being berated as "dumb bureaucrats" as the stockmen are of being branded by writers as "robber cattle barons."

Some journalists in the Roosevelt area expressed the opinion that the controversy is largely one of personnel and personalities. Competent foresters not connected with the Forest Service insist that much of the present conflict is kept alive by writers—local and professional—but this may be difficult to control, since playing up of controversies attracts readers.

The Board believes that the basic difficulties will not be resolved in mass meetings where something approaching "mass hysteria" may develop and little or nothing be accomplished—unless possibly widening the gaps of disagreement. It believes that the individual approach with the permittees around the conference table and on the allotments will usually get good results. A frank discussion of the problems involved—how, in many cases, adjustments will eventually benefit the permittee and how the grazing program must fit in with other uses, should, with reasonable individuals, secure a spirit of cooperation rather than antagonism. From such conferences the permittee usually goes away feeling that he has had a fair hearing and that he is not being dealt with in an arbitrary manner.

The Board believes that a more aggressive public relations policy should be undertaken which should aid in developing a better relationship between the Forest Service and the people of the State. The formation of a Forest Resources Board for Colorado, as suggested later, might become a major factor in developing a more cordial relationship.

A good public relations policy will be of little avail unless the permittees and the public in general are well informed on all the issues and the reasons why restrictions may be necessary in the overall resource management. Antagonism is sometimes deep seated and difficult to root out but the average American is fair, whether he be a "bureaucrat" or a "robber cattle baron"—provided he knows the facts involved. Your Board is not certain that the permittees and the public in the Roosevelt area have been sufficiently informed on basic facts of wildland management to give them a good understanding of the controversial questions involved. It questions whether the administration in this area has made full use of the many educational channels for this purpose. These media would include the schools, conferences, the radio, films, exhibits,

demonstrations, "show me" trips, the press, lectures, etc. In other words, have the forest officers been making sufficient efforts to sell the public in general on the importance of the work they are doing; the inter-relationship between uses; and just how all concerned will benefit?

Technical Questions

One of the fundamental questions in the whole problem of grazing in the Roosevelt National Forest is the adequacy of the measuring stick used by the Forest Service. In other words is the Service applying the proper remedies for the range ills? The yardstick used for determining the degree of overgrazing in this area and the severity of the grazing restrictions to be imposed, is based upon the results of extended studies made by scientists who have been assigned to this very problem. This part of the grazing controversy then boils down to whether the findings of David F. Costello and H. E. Schwan, as set forth in their publication, "Conditions and Trends on Ponderosa Pine Ranges in Colorado," is a proper yardstick for making grazing adjustments on the Roosevelt National Forest. This is essentially a study of plant successions from the viewpoint of the ecologists to determine which trends show improvement of the range and which do not. The objective being, naturally, to get and maintain the maximum amount of covering vegetation to protect the soil and watershed and at the same time to see that the plant communities which are thus established are those which will provide the maximum in grazing efficiency-taking into account the density of the vegetation as well as its nutritive value, time of maturing, resistance to grazing use, etc. The application of this knowledge to the range must take into account the kind and number of livestock, the season of grazing use and the type of soil, including the slope and its erosive character. It is pointed out that the fact that grazing animals may scratch out a living does not necessarily mean that the range is not in a declining state. When the downward trend is continued this eventually means loss in carrying capacity and rapid deterioration of the range.

It is the opinion of your Board that the standards as determined by Costello and Schwan are serving a useful purpose and that little if any success has been made to discredit their findings by the introduction of new evidence. The Forest Service is therefore justified in using its present standards in determining trends and conditions on the Roosevelt National Forest. We believe that research studies should continue to determine the relative values of forage plants which do not make up the climax vegetation. In the meantime, until more conclusive research results are available, or until sub-climax vegetation has been definitely proven to be unsatisfactory for the multiple job to be done, we would oppose complete exclusion of all grazing in most forest areas.

Use of Other Agencies

From the viewpoint of doing the greatest good to the greatest number as well as doing the most for the national forest users, every effort by the Forest Service and more particularly by the other agencies of the Department of Agriculture—especially the Extension Service and

the Soil Conservation Service--should be utilized to the fullest extent possible to help the permittee to improve the productiveness of his own land in order to lessen, in his economy, his dependence upon the federal lands.

Along with the more intensive development of the stockman's private lands should go a much more adequate improvement of the federal range lands. This program has been badly hampered in the past by insufficient funds appropriated by Congress to carry out needed range improvements on the 83 million acres of grazing lands under the Forest Service. Some of the proposed eliminations and reductions of livestock on the various allotments could be minimized if funds were available to develop new sources of water and build fences to secure better distribution of stock and thus secure more complete utilization of forage. Such an accelerated program would be highly approved by both permittees and the Forest Service and would tend to relieve the devastating grazing pressures on the more accessible and better watered portions of the allotments.

Range Improvements

That Congress is in the mood to make some unusual efforts for the betterment of the national forest resources and uses is observed by the passage in November of the joint resolution "To provide for the reforestation and revegetation of the forest and range lands of the national forests and for other purposes." This measure authorizes the expenditure of \$1,500,000 for range revegetation for the year ending June 30, 1951—the amount gradually increasing to \$3,000,000 per year for the year ending June 30, 1955—with a continuation of this amount annually until 1965. If Congress really means business and if the Budget Bureau will recommend the maximum amounts authorized your Board believes that it should be possible to make some short-cuts in restoring depleted ranges on the national forests. It should be remembered, however, that range reseeding is not a cure all, but especially on the better sites, should be an important factor in bringing back depleted ranges to reasonable carrying capacity and at the same time greatly improve the protection of the water and soil resources.

Past Policy

One criticism of the Forest Service policy voiced in the Roosevelt National Forest Region was to the effect that past orders for closure or reduction on grazing allotments have not been sufficient, over the years, to accomplish the desired results. But the Service has been fighting a retreating battle, so to speak, and not getting the job done once and for all. This is admitted by many of the Forest Service officers and, no doubt, has resulted from pressures from permittees and because of greater production of foods for war needs. Similarly, over-cutting of sustained annual allotments of timber has occurred on the national forests due to war pressures. This means some "lean years" for timber output until the growth builds up to the normal or sustained annual amount available for harvesting.

The orders for closure and reduction of allotments may not have given the permittee sufficient time for making adjustments and, in other cases, the permittee may have been dilatory in acting and as a result some unnecessary hardships have followed. It is understood that closures and reductions do in some cases require difficult adjustments and work some actual hardship. The problem is to soften these impacts as much as possible but at the same time provide for a definite restoration program for the range.

Policy Statements

The Forest Service should make it clear to the people of Colorado, and to the Roosevelt area in particular, that its policy is to make maximum use of the grazing resources on the national forests so far as this does not seriously interfere with other and possibly more important uses. Your Board has been told by stockmen that it is the policy of the Forest Service "to remove all livestock from the national forests." If this is the policy, then your Board of Review has not been so informed. Such statements have had an unfortunate reaction and have tended to create prejudice against the Forest Service. It is believed that the Forest Service should take advantage of every opportunity to state its position with relation to its grazing policy. As has been said, much of the controversy in the Roosevelt area is caused by unofficial statements on policies and purposes of the Forest Service, and by the proddings and unfair statements against both the stockmen and the Forest Service.

Research

The Board of Review has had opportunity to see the results of some of the range research work and demonstrations. It has also had an opportunity to talk with some of the scientific staff and review their findings. The Board is impressed with the progress which has been made by these investigators in the fundamental work which is essential for a good understanding of the intricate problems involved in range, water and soil management. The investigators have worked out the kind of cover which they believe should be maintained or restored on the Roosevelt Forest allotments. Where the trends have been downward it is the policy to reverse these and still make use of the range so far as this is possible.

The Board was especially impressed with seemingly conclusive demonstrations indicating that moderate grazing use, over a period of several years, is far superior to that on unrestricted, adjoining lands. One series of plots showed that the moderately grazed area produced, on a four-year average, over twice the usable forage that was grown on the adjoining open range. The Board believes that more research and demonstrations of this type should convince the skeptical of the dollars and cents value of restricting stocking on overgrazed allotments.

There is a great need for an expanded and continuous program of research pointed toward the improvement and constructive use of the national forest range, including carrying capacity studies, optimum vegetative types

for regenerating different allotments, reseeding the range artificially, testing new forage plants and other lines of investigation which will aid both in maintaining and improving the grazing industry. To carry out an adequate research program in keeping with the importance of the grazing industry in Colorado, every possible effort should be made by the Service, Congress and the Budget Bureau to make ample funds available.

Forest Resources Board for Colorado

There is need for a Forest Resources Board for Colorado. Its membership should represent all the major groups of national forest users. It should function by securing the composite advice of the several groups and should assist the Forest Service in formulating local policies. It should become a major factor in safeguarding long time conservation interests and assist in providing for the fullest use of all the resources consistent with good management. It should give opportunity for hearing complaints against local decisions of the Forest Service, and recommend appropriate action to the Regional Forester. Recommendations, which, in the judgment of the Regional Forester, are unsound or in conflict with policies of the Department of Agriculture, should be reviewed by the Chief of the Forest Service and if not sustained could be appealed to the Secretary of Agriculture, and, at the option of the Secretary, be referred to the National Forest Board of Review for recommendation.

The Forest Resources Board should include a member from the Forest Service (to act as Chairman) and one each representing the domestic water users, the irrigation farmers, the cattlemen, sheepmen, sportsmen (hunters and fishermen), other recreation interests (campers, picnickers, tourists, etc.), timber processors and finally one member with a broad-gauge background to represent the interests of the public in general. The Committee should have regular meetings, perhaps quarterly.

Your Board of Review believes that the formation and functioning of such a Forest Resources Board should assist the Forest Service in working out important policy matters, adjusting local disputes, regulating forest uses in a practical way, broadening educational views and tending to restore confidence between all concerned in Colorado.

SUMMARY AND CONCLUSIONS

of

REPORT ON THE GRAZING SITUATION ON THE
ROOSEVELT NATIONAL FOREST IN COLORADO

JANUARY 25, 1950

1. An unfortunate situation exists between the Forest Service and the grazing interests in the Roosevelt National Forest area. In the interest of all concerned this situation should be improved or corrected.
2. The range lands or important watersheds which were visited showed excessive deterioration.
3. An evaluation of the various uses on the Roosevelt National Forest indicates that these should be considered on the following priority basis: watershed values, first; recreation, including camping, picnicking, tourist travel, hunting and fishing, second; grazing, third; and timber uses, fourth.
4. Closure of limited areas to grazing on vital watersheds seems to be justified where steep topography, erosive soil, and lack of vegetative cover make such action imperative in safeguarding the water and soil resources, but should not be applied generally and there should be a clear and general understanding that it is not a major policy of the Forest Service to exclude grazing on any except such particularly unsuitable, limited areas.
5. In the administration of timber sales, cutting practices should be limited in such a way to protect the watershed values. This may involve elimination of all timber cutting on critical areas and require selective cutting and protection of soil cover by careful logging practices on all timber sales.
6. In the granting of "on and off" and "private land" permits, the permittee should be required to submit a lease or other authority in writing for the use of the private land which is to be covered under such permits.
7. This is an extremely difficult time in which to make major adjustments in allotments of livestock on the Forest because of high prices and high profit possibilities in the livestock industry. There is on the Roosevelt Forest an accumulation, or back-log of needed adjustments that might have been made gradually over a period of years, with general acceptance, had not World War II intervened, followed by continued high prices. In general your Board recognizes the acute need of adjustments and the necessity for cuts in allotments on much of the Forest, but recommends a careful consideration of these adjustments with the view towards spreading major reductions, to achieve moderate grazing, over a period of more than three years, possibly five years, and eliminating all livestock only in very limited areas where extremely steep topography, eroding soil, and lack of vegetation make such action imperative to safeguard water and soil resources.

Until more conclusive research results are available, covering a longer period of time, or until sub-climax vegetations have been definitely proven to be inadequate for the multiple use job to be done, the Board does not recommend complete exclusion of all livestock grazing on most forest areas.

It is assumed that efforts will be made to secure action of responsible state and other agencies to obtain proportionate reductions in big game population in keeping with reductions with livestock numbers.

8. Before cuts in grazing allotments are put into effect a careful "on the ground" survey with the permittee should be made and full explanations and discussion of the necessity for such cuts should be given in order to minimize misunderstandings. It is understood that this procedure is usually followed.

9. The Forest Service should adopt a definite policy of promoting better crop and forage production on private lands of permittees, especially where national forest allotment cuts are necessary. This should involve cooperation with the Extension Service, Soil Conservation Service, and other agencies.

10. Secure the full cooperation of the sportsmen's associations and the state game officials in working out a positive program to control wildlife population, particularly big game, in order to secure a proper balance of use between game animals and domestic livestock.

11. The technical procedures for range management on the Roosevelt National Forest appear to be sound in the light of present available information. Additional consideration should be given to the possibility of using sub-climax forage vegetation as a reasonable approach toward satisfactory range economy on parts of the Forest.

12. The need for an intensified range research program is apparent. This should involve especially the following lines:

- (a) Reseeding experiments including both perennial and annual plant species.
- (b) Study of sub-climax types of vegetation in the economy of the range.
- (c) Replacement of cheat grass on depleted range areas with better species.
- (d) Establishment of additional demonstration range plots to show, in weight of forage or pounds of meat produced, the good economy in moderate range use as against over use. (Similar to the Pole Hill plots.)

13. It is apparent that more federal funds for improvement of range facilities would increase the productiveness of the range in some districts and would be a factor in minimizing livestock allotment cuts. The principal needs are for fences and the development of stock watering places.

14. Much of the conflict in the Roosevelt area results from emotional reactions due to proddings of writers -- some of whom are ill-informed or are interested in seeing the controversy continued. An effort to have the public fully informed should help to keep the emotions in equilibrium.

15. It is believed that a more aggressive public relations program should be undertaken by the Forest Service. This should not be delegated to one or two specialists only, but should become the studied program of each person from the regional office down to, and including, the ranger district.

16. There seems to be opportunity for greatly extending the educational program with reference to the resources and uses of the national forests in the Colorado region. All the educational facilities should be brought into play, including the schools, clubs, the press, the radio, illustrated lectures, "show me" trips, demonstrations and by making use of other federal or state agencies. An intensified educational effort should have its effect in developing better public relations and also ease some of the emotional aspects in evidence. A Forest Resources Board for Colorado should become a vital factor in the educational program.

17. When and if changes in Forest Service personnel are needed, unusual care should be given in making assignments in this region in order to make sure that the men assigned have the particular qualifications, which will assist in securing better relationships between the Forest Service and the public.

18. The Board definitely recommends the formation of a Forest Resources Board for Colorado whose personnel should adequately represent all of the major groups concerned with the use of the resources of the national forests in the state, with authority to make recommendations to the Regional Forester and with right of appeal to the Chief of the Forest Service and the Secretary of Agriculture.

ITINERARY
ROOSEVELT FOREST INSPECTION
by
NATIONAL FOREST BOARD OF REVIEW
August 1949

August 7 trip to Manitou Experiment Station and Forest

The Board observed the experimental and demonstration work involving the following:

1. Plots to measure water runoff and soil loss under different treatments. The results show conclusively the effect of good cover in preventing surface runoff and retarding soil erosion.
2. Effect of different intensities of grazing on survival, vigor and resulting density of the more common range plants. Moderately grazed tracts showed good survival of many good forage grasses and good resultant density.
3. Effect of heavy, moderate and light grazing on infiltration of water into the soil. Rate of infiltration seemed to be increased definitely with decreased grazing use.
4. Results in re-seeding range grasses. Experiments indicate range improvements possible especially by re-seeding tested species on the more favorable sites.

August 8 trip on Boulder and Estes Park Districts

1. First stop was at the Boulder District headquarters office in Federal Post Office Building, Boulder, Colorado. District Ranger William Beckley reviewed the Ranger District Land Use Plan and discussed integration of grazing use with other uses and values such as timber, watershed, fish and game, and such recreational uses as camping, summer homes, resorts, etc.
2. Second stop on Magnolia cattle allotment. Discussed range depletion, elimination of large part of native bunchgrasses, heavy kill of choice browse species such as mountain mahogany, and invasion of cheatgrass. Examined erosion problem resulting from past grazing on thin, sparsely vegetated, granitic soils and on slopes which are exceptionally steep.
3. Third stop was on Forsaith C&H Allotment. Inspected deep gullies along stream bottom and in hay meadow which have developed within the past ten years. Range management has been complicated by "on and off" permits.
- 4 and 5. The fourth and fifth stops were on the Caribou C&H Allotment in the subalpine spruce type just below timberline. Examined damaging effects of cattle grazing on willows, which have been largely eliminated on alpine meadows and along stream channels. Observed high lining on aspen and saw cattle grazing

among snow drifts above timberline at approximately 12,000 feet elevation. Cattle grazing on this allotment extends to approximately 13,000 feet.

6. The sixth stop was on Sunset-University cattle allotment. Examined depleted meadow with new gully in process of development and enlarging rapidly. Original perennial bunchgrasses almost completely gone and partially replaced by weeds and a thin stand of bluegrass. Willows almost entirely killed out of meadow; aspen shows high lining by cattle.
7. Jamestown C&H Allotment and Jamestown Cemetery were inspected during seventh stop. The cemetery has been fenced about 25 years and is covered with dense cover of native perennial bunchgrasses and deeply carpeted with litter. No surface runoff in cemetery.
8. The eighth stop was at Old Man Ranger Station near Estes Park, where Ranger Hodges reviewed results of range studies being conducted at the Pole Hill Plots. The inspecting party visited the Pole Hill Plots briefly on August 10. Results of the Pole Hill studies have been described in a report prepared by Herbert E. Schwan. Copies of that report were provided for information of the Board.

August 9 trip along Poudre River and Rist Canyon

During the afternoon of August 9, members of the Board inspected results of excessive cattle grazing on mountain mahogany, as shown along the fence line which separates the Ansel Watrous picnic grounds from the adjoining cattle range within the Young's Gulch C&H Allotment. This fence line comparison indicates competition between deer and livestock in the use of mountain mahogany and other browse is much more extensive than most people have heretofore supposed. Excessive browsing by cattle has killed out or reduced the vigor of browse plants to the point where they are producing less than a quarter to half of their potential. This situation is common on many front range cattle allotments on the Roosevelt. The inspecting party returned to Fort Collins by way of Rist Canyon where results of recent flood damage were observed.

Photographs

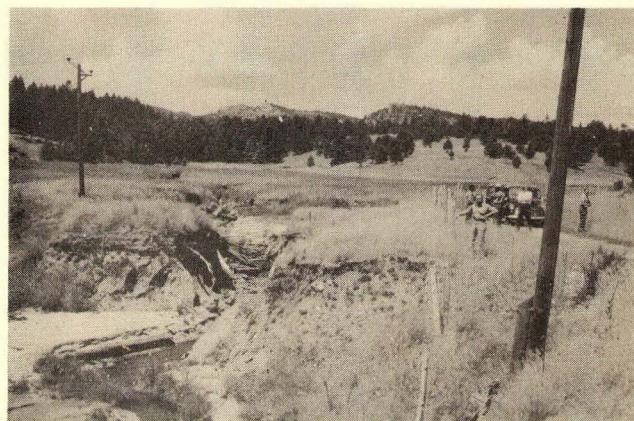
Attached photographs illustrate conditions inspected by the Board. Pictures are also included illustrating general topography and range conditions on the north end of the Roosevelt. Slopes generally are more moderate, soils better stabilized and the greater part of the range can be continued in grazing use, although moderate to heavy reductions will be needed in many cases.

PHOTOGRAPHS ILLUSTRATING RANGE CONDITIONS ON ROOSEVELT FOREST INSPECTED
BY NATIONAL FOREST BOARD OF REVIEW DURING PERIOD AUGUST 8-10, 1949



Stop #2. Magnolia Allotment. Ranger Beckley examines dead mountain mahogany in erosion gully. Boulder City watershed. Range in badly depleted condition.

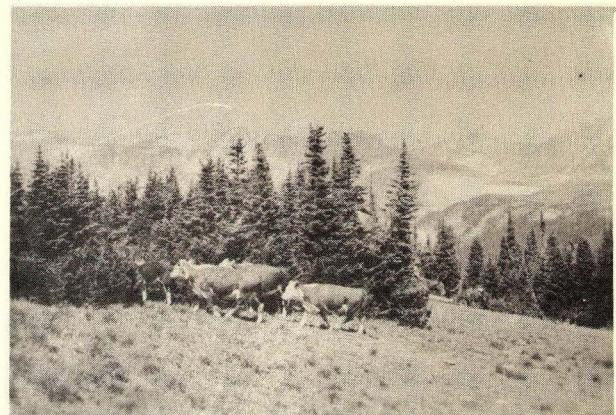
Stop #2. Magnolia Allotment. Note cheatgrass has invaded and is now dominant on this area. Dead browse resulted largely from excessive use by cattle.



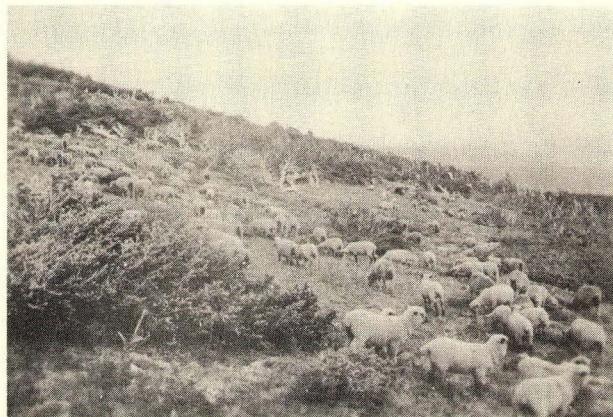
Stop #3. Inspecting party examines new gully on Forsaith Gulch C&H Allotment. This 10' gully is a completely new development within past 10 years. Farmer tried to stop this gully cutting through his field by constructing a dam, but 1949 spring floods washed away the dam and enlarged the gully.



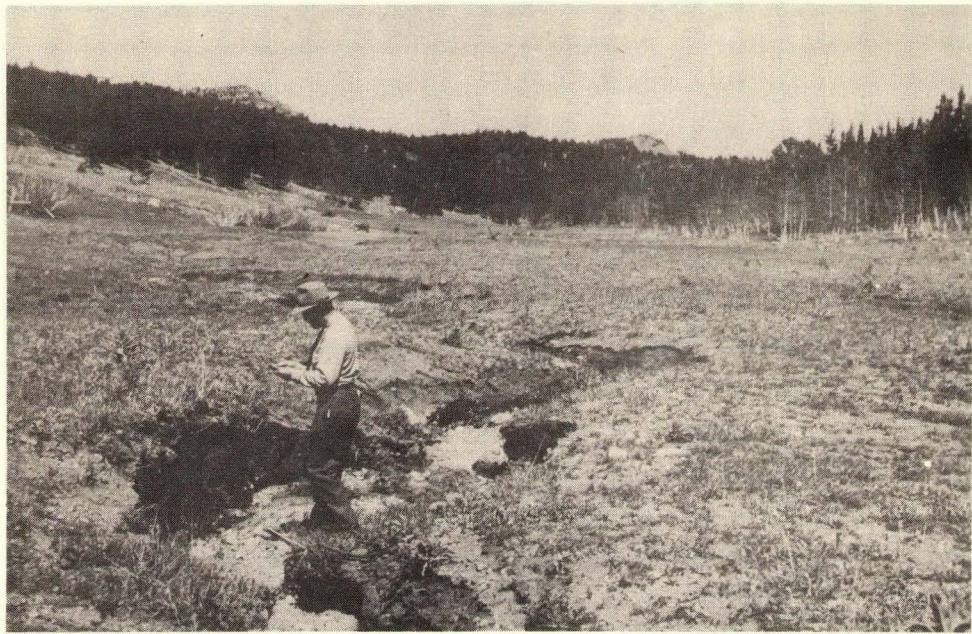
Stop #4. Dr. Forman and Dr. Costello examine willows severely damaged and largely killed out along subalpine stream on Caribou Allotment. This area has high watershed values for conserving runoff and minimizing soil erosion.



Stop #5. Typical subalpine spruce timber range. In the background, true alpine mountains, 11,000 to 13,000 ft., grazed by cattle on Caribou and Sunset-University cattle allotments. Water yields in alpine type estimated around 2 to 3 acre feet per acre.



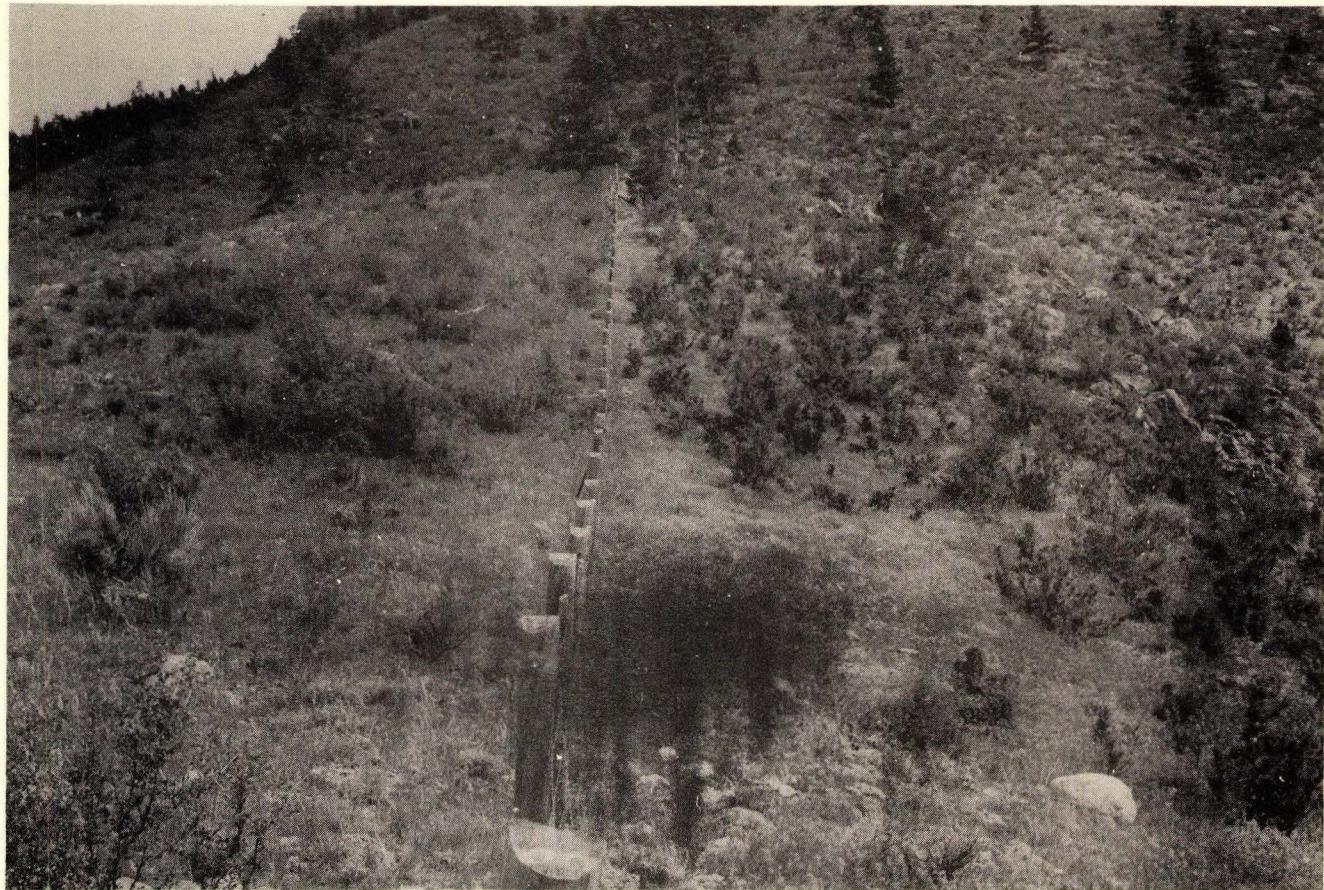
Stop #5. Sheep also graze at timberline and above. At stop #5 the Board viewed high alpine sheep range on adjoining sheep allotments. These sheep on Niwot S&G Allotment have largely killed out willows and other choice weed and browse species.



Stop #6. Board members examined depleted meadow near highway on Sunset-University C&H Allotment. Here new gully is cutting down through a meadow and lowering the water table. Native grasses and willows largely killed out by long period of excessive use by cattle.



Stop #8. Old Man Ranger Station and Pole Hill Plot. Here Board members, together with Ranger Hodges and Supervisor Mason, inspect results of Pole Hill Plot studies. The four-year average forage production on the moderately grazed plot was 1177 pounds per acre and on the adjoining open range 569 pounds per acre. In the moderately grazed plot cattle consumed more forage than was produced on the open range, and left nearly as much on the ground.

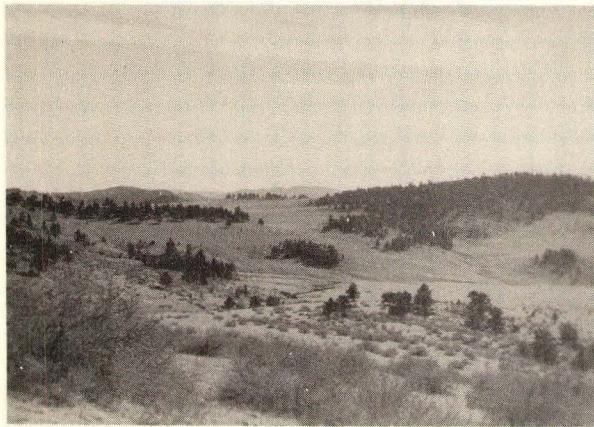


Vegetation and browse along this fence line, located at the Ansel Watrous picnic grounds, was inspected by Board members on August 9. This fence line comparison of cattle and deer use is located on the Young's Gulch Cattle Allotment of the Roosevelt Forest. Deer have unobstructed access and can graze equally on both sides of the fence. Mountain mahogany is the principal shrub. On the left side of the fence (deer use only) this shrub is in healthy condition and produces a large amount of feed. This same shrub on right side of fence (combined cattle and deer use) shows heavy grazing pressure primarily from cattle use. The shrub is so severely hedged that it produces very little feed and is gradually being killed out from excessive grazing by cattle.

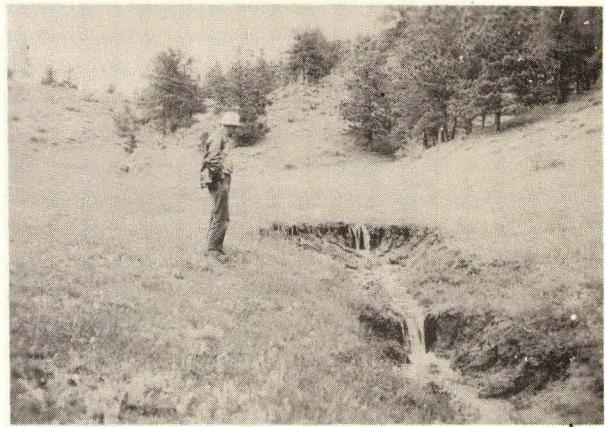


Example of spring period flash runoff on farms along Rist Canyon, which was inspected by Board members on August 9. The farmer here tells Ranger Stagelman this gully cutting through his hay field extended its channel another hundred feet during only a few days of heavy runoff.

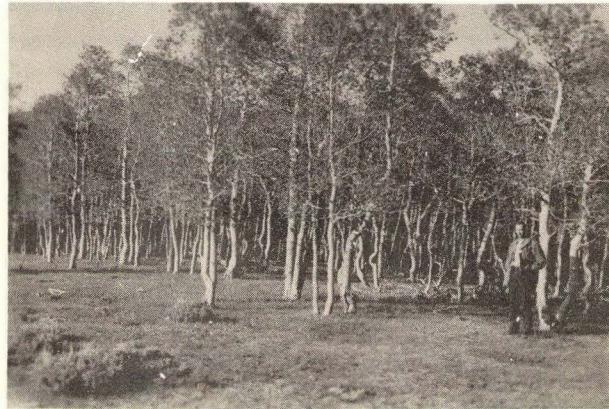
Examples of Useable Range on Northern Part of Roosevelt Forest



Example of rolling topography on northern part of Roosevelt where much of range supporting feed for livestock has slopes under 20 to 30 per cent and can safely be grazed.



Flash runoff from light rainfall on Sheeley C&H Allotment on north end of Roosevelt Forest. Useable range here seriously deteriorated but many slopes are under 30-40% and can be continued in grazing use if reductions in stocking are made.



Example of aspen type on Laramie River Dist. on northern end of Roosevelt Forest. Note aspen high lining by cattle and excessive grazing has killed out all aspen seedlings and no aspen reproduction has been able to survive for the past 15-20 years. A few deer on this range, but cattle grazing is primarily responsible for destructive use of aspen.